
Request to be heard?: No

Precinct: General

Full Name: Patrick Irwin

Organisation: Irwin Structures Pty Ltd

Affected property:

Attachment 1: IrwinFishermansB

Attachment 2:

Attachment 3:

Comments: See attached



**IRWIN
STRUCTURES**
FORENSIC
ENGINEERS

21 Church Street
Port Melbourne VIC 3207
t 03 9676 9502
m 0417 367 486
f 03 9676 9503
e pi@irwinstructures.com.au

Irwin Structures Pty Ltd ABN 14 118 476 930

RESPONSE TO DRAFT VISION & Interim Design Guidelines

Site	Fishermans Bend
Reference	Port FB R1
Date	14 November 2013
For	Places Victoria
Author	Patrick Irwin B.ENG(CIVIL), F.I.E.AUST, CP ENG, RBP EC 1619

Synopsis

Both documents have been reviewed in detail and comment, suggestions & requests for further information are embedded in the main body of this response. Main concerns relate to density and traffic. Response is from the expertise of an engineer who has also worked extensively in building design and development but also reflect experience living in Port Melbourne, cycling and motoring.

About the Author

Patrick Irwin is a senior forensic engineer who nowadays works mainly in the building dispute field. His background is in building design and he has 30 years experience in Melbourne, mainly in structural design but also in architectural design, town planning and construction. He served on the Building Appeals Board between 2009 and 2012. He is a long term inner suburban resident and has been in Port Melbourne since 2002 and prior to that in the inner north.

DRAFT VISION

D1 NOMENCLATURE

D1.1 Since we are re-naming suburbs this would be a good time to correct names. The area should either be titled “Fishermen’s Bend” or “Fisherman’s Bend”. Since Fishermans is neither the plural of Fisherman nor the possessive pronoun it is incorrect. I will refer to Fisherman’s Bend.

Key point of action: Correct name

D2 BACKGROUND & SCALE CONSIDERATIONS

D2.1 While there is no doubt that Fisherman’s Bend is overdue for renewal and a logical place for some residential expansion it is important to keep in mind that the high intensity suggested is driven by substantial growth intentions for Melbourne. Where did the notion that this was a good idea come from and whatever happened to decentralization? Most advanced countries manage to avoid such unbalanced growth concentrations in their major cities. Excessive growth pressures infrastructure and makes life more difficult. We would favour a policy of minimizing Melbourne’s growth and encouraging regional development.

Key point of action: Places Victoria to Provide Input to the Ministry

D2.2 Hopefully Places Victoria have reviewed Docklands and Southbank and understand the major mistakes of those developments. Docklands is too big in scale, windy, soulless, ugly and stupid. Southbank is just sad, lonely and soulless. The density of Southbank should be reviewed carefully. Both these suburbs are examples of what not to do for residential development. We have not

assessed them as commercial facilities. A study of Southbank, Beacon Cove, Docklands and the recently re-developed areas of Port Melbourne should be undertaken identifying strengths and weaknesses. This should include social research (D2.7) Buildings are for society and development should understand people's needs and desires, not just be aesthetically or ideologically driven.

Key point of action: Places Victoria to Research Recent Developments

- D2.3 It is well established that social capital is inversely proportional to density. People in rural areas know their neighbours often many kilometres away, people on quarter acre blocks have their neighbours in for Christmas drinks yet flat dwellers rarely know those above or below them. This does not necessarily mean that high density is bad, but it is a factor that should be considered.
- D2.4 It is interesting that there has been a constant drive to re-invent suburbs in inner Melbourne over the last twenty years (eg: Southbank, Beacon Cove and Docklands). Yet Melbourne's most desirable and attractive inner suburbs remain the traditional, Toorak, Albert Park and Middle Park for instance. There is a lesson there somewhere.....
- D2.5 Apparently a driving motivation for higher density is the supposed liveliness of these areas. I can understand this impression, living in one. But I question whether this is a good substitute for social capital. What looks lively superficially is often little more than people paying high prices for coffee and eating food they don't need. The European vision that drives this is often gleaned from brief visits to European countries where many people are out on the street because their domestic situations are so constrained; (most people in Europe live in small flats). Is this entirely a good thing to aspire to?
- D2.6 We live in Port Melbourne in the middle of the area that has had the highest development of flats in recent years. Seven blocks of flats have been built within 100m of our house in the last five years. Socially this has been a complete disconnect. We have not once met a flat occupant yet we know most of our immediate house dwelling neighbours. Every weekend the streets are jammed with furniture vans as people move in and out of the flats. Questionable social planning....
- D2.7 Above we have raised questions that, given, the billions about to be spent could be better informed, if not answered with a little social research. It would be a simple and inexpensive exercise to survey residents in areas of different densities with questions about lifestyle, satisfaction, how long they lived there and why they moved. Massive social planning - which is what we are doing - cries out for this.

D2.8 The laudable ambitions implied in the draft of Fisherman's Bend being a vibrant and lively area will not be achieved with the target density of 200 dwellings per hectare. That is a recipe for Southbank style deadness.

Key point of action: The target density is too high.

D3 COMPULSORY ACQUISITION OF LAND

Back when governments used to plan well in advance and build infrastructure in advance of demand (instead of decades after) it was common for them to compulsorily acquire land to do so. This needs to be done here, there is so little government land and so much to do.

Key point of action: Identify and acquire land.

D4 FUTURE INTEGRATION WITH FISHERMAN'S BEND NORTH

After General Motors closes there will be another massive land release that is likely to be similarly developed to your vision. This needs to be considered in the planning of infrastructure for the future

Key point of action: Expand area to be planned long term.

D5 INFRASTRUCTURE - GENERAL

Key point of action: Road, rail, cycle paths and amenities must be in place as early as possible.

D6 TRAFFIC IMPACT & THE SURROUNDS

D6.1 There is nothing in the overview about the impact of traffic on the surrounding infrastructure and suburbs. The Web Dock expansion, currently underway, is just about to release another 20% of trucks onto the Westgate which already carries the highest proportion of heavy vehicles of any major artery in the country. Westgate's lanes have recently been narrowed to below the usual minimum in order to squeeze another lane on at the expense of an emergency lane. Clearly the current road system is already at or past breaking point. It is essential to plan and consider required further road infrastructure.

D6.2 First on the list is another lower Yarra Crossing and this should be a tunnel as tunnels are much cheaper to build if you have the space for the approaches which we do now but won't forever. This must be planned and integrated.

D6.3 Not mentioned in the draft vision is the impact on surrounding suburbs. On a nice weekend Port Melbourne is no longer a nice place to live such is the invasion of visitors and this can only get worse for all the immediate beachside areas all of which are short of carparking and beach side amenities.

Key point of action: Consider traffic implications upon surrounding suburbs.

D7 PHYSICAL ENVIRONMENT

D7.1 Fisherman's Bend is flat, low, barren and windswept. It would benefit from changes in topography from artificial hills, water features and anything to break up the wind and dullness.

D7.2 Water features are commonly incorporated into modern low density residential developments in the dual role of stormwater detention. This is possible on a higher density scale but difficult on small sites. Property values would justify a transformation. An obvious difficulty is that to do this well requires large scale development. Some cooperation of land owners with coordination by the municipality town planning authority may help.

Key point of action: Consider physical improvements and coordination between sites.

D8 DEVELOPMENT SCALE

D8.1 Docklands is a copybook example of de humanizing barren large scale wilderness. Albert Park and Middle Park and old Port Melbourne are examples of attractive small scale, particularly in their shopping strips. Generally the smaller the better although it may be difficult to avoid a large supermarket which the area does need.

Key point of action: Keep building scale small.

D9 MINIMISE FLATS

D9.1 Although modern blocks of flats are an improvement in design on those of yesterday they are larger which is worse. The bigger the flats, the uglier, windier and the less social capital. These are sad places to live.

D9.2 The draft vision makes constant mention of families. Families don't live in flats unless they have no option and it's a very sad thing to deliberately plan for people not to have options.

D9.3 Every developer will want to build flats and the largest and densest flats they can fit on their sites. How you are going to resist this is not clear. It has not been effectively resisted in Southbank.

D9.4 Consider specific targets of %s of residential buildings that will not be flats.

Key point of action: Minimise Flats

D10 TRAFFIC MODES

- D10.1 The vision shows intent to be hostile to private motor vehicle users. While encouraging cycling and public transport use is laudable it is unrealistic to ignore the fact that private motor vehicles are necessary for people such as: The elderly, families, tradesmen, virtually anyone who's time is valuable, people traveling on routes not covered by public transport, people traveling on routes too long to practically cycle, most disabled people, anyone who has to carry anything significant, anyone making deliveries, salespeople, etc. Also people who are well dressed will not ride bicycles (rightly or wrongly).
- D10.2 Clearly even if everyone who could rode a bike or took public transport there would still be major need for private motor vehicles and your vision does not adequately address their needs or facilities required, such as parking. This is discriminatory and unrealistic.

Key point of action: Improve consideration for private motor vehicles.

D11 CAR PARKING

- D11.1 Squeezing carparking is highly discriminatory or the groups mentioned at D10.1 and has both economic and social consequences as we are experiencing in Port Melbourne. For example elderly parents have difficulty visiting and people can't have private gatherings with significant numbers of guests. Just ask anyone in Beacon Cove, they suffer similarly.
- D11.2 Adequate car parking should be provided, particularly in residential areas where it is a social necessity.
- D11.3 Parking charges should be reasonable and time limits flexible. Rorting of charges by private operators taking advantage of shortages or rorting by councils by charges or fines should be avoided. or at least not facilitated.
- D11.4 Kerbside parking should be maximised.

Key point of action: Carparking to be adequate

D12 TRAFFIC MANAGEMENT

- D12.1 The opportunity should be taken to remove all possible traffic lights and put no more in. Williamstown is a great example of the benefit of doing this. There is no reason to create Docklands style gridlock. This is of great benefit to cyclists as cycling really comes into it's own if one can keep moving; that way it is fast and easy. Anyone who has attempted to cycle through Docklands compared with the main Yarra Trail will know what I mean.
- D12.2 Plumber Street is intended to be a major artery. Plumber Street was improved a few years ago and is already over crowded. It needs to be widened further and have a central median. This will require additional land but this must be done even, if it means taking the nature strip on the south side.

Key point of action: Improve Road, Avoid Traffic Lights

D13 ENCOURAGING CYCLING

- D13.1 I am a cyclist, this is my preferred mode of transport for short distances and particularly in and out of the City (this does not mean I want life made impossible for motorists!). I operate at a high level in the legal and construction industries and when I arrive for a meeting on my bike, in a suit I am *always* the only cyclist. Recently I went to a presentation at Engineers Australia where over 200 attendees packed the theatre and my bike was alone in the rack.
- D14.2 Although sporting cycling has increased markedly in recent years utility cycling remains low in Australia by international standards and remains almost exclusively the province of young males.
- D14.3 Surveys consistently show that reasons cited for not cycling include safety concerns and the mandatory requirement for helmets. This is very unfortunate as while cycling is hazardous in terms of the risk of minor injury it is very safe in terms of the risk of major injury or death. On average you have to ride a bike in Victoria for 70,000 years to get a head injury and 200,000 years to die. If you review international research citing Australian statistics you find Australia has lead the world in proving that helmets do not reduce the risk of head, neck and facia injury and discourage cycling and this is the reason they have been adopted in so few other jusidications and abandoned in others. I have not seen research that separates whether helmet requirements discourage cycling due to the need to wear them or whether they heighten safety concerns unnecessarily but painting cycling as a dangerous activity but forcing people to wear helmets is obviously not helpful. Either way, the fact is that the rest of the world is satisfied that mandatory helmets are not a good idea. I can get you specific references if you wish but the material is readily available. If you go to websites such as

<http://cyclehelmets.org> or <http://crag.asn.au> you will find research material and links to other sites. Australia and New Zealand, both of which introduced mandatory helmet laws before the repercussions were known are virtually alone in sticking to such laws and here we have the biggest fines industry in the world. Medical authorities the world over have concluded that the health benefits of cycling far outweigh the trauma risk which is not reduced by helmet wearing. It is also clear that cycle hire schemes will never work with mandatory helmets. The city of London have had an enormous scheme in place for many years and have never had a head injury. Like the rest of the world they do not wear helmets.

Key point of action: Places Victoria to lobby the government to remove compulsory helmet laws.

- D14.4 Cycling is best facilitated by separate paths and one would hope sufficient land can be found to wind such paths though Fisherman's Bend. The Copenhagen path system is ugly and does not work well as it puts cyclists in the path of people getting in and out of cars. Also cycle lanes in busy roads are a bad idea; they take useful space away from traffic and encourage cycling on in appropriate roads, alternative routes are the best solution.
- D14.5 Cycling mixes well with pedestrian traffic although not all pedestrians are comfortable with this, concerns are usually based upon a lack of understanding of cycling and a mistaken apprehension of risk. Footpaths are very rarely heavily trafficked and mostly vacant and can be well used for bikes as well as pedestrians.

Key point of action: Provide cycle paths and encourage shared footways.

I INTERIM FISHERMAN'S BENDS DESIGN GUIDELINES

G1 Elevated open spaces are no substitute for open spaces on ground as they are usually too windy to use. That's why you never see anyone on the balconies of high rise flats.

Key point of action: Ensure adequate free open space without dependence on wind affected areas.

G2 Wind is a major design consideration and it is good to see the guide acknowledging that. As a structural engineer who has worked with wind load design extensively over decades I am aware of the limitations of this process. Wind load design is based upon highly simplified calculations or, at best, small scale models. All are highly inaccurate and it doesn't take much surrounding development to greatly complicate wind design. Protection from building induced blasts is complex and difficult to achieve. If you've ever walked or cycled through between the Southbank Hilton and Southwark when a brisk southerly is blowing you would know what I mean. Wind design in Australia is, as explained above, theoretical and is rarely informed by in situ testing. Wind velocities are measured in free stream situations but wind loads are not measured on buildings and wind velocities resultant from surrounding buildings rarely investigated. Fisherman's Bend is a serious project in a windy area, it would benefit from some research. There are people out there who could do it (eg: Bill Melbourne at Monash Uni) and there may even be organisations that would fund such research.

Key point of action: Provide incentive for past designed wind environments to be measured and benchmarked against their design aims in order to improve wind management.

G3 Your ref: 1.3. Rear vehicle access to residential sites looks tidy but reduces social interaction as people rarely encounter each other coming and going from the rear of properties. Despite this issue we generally agree that laneways and little streets can be attractive and useful.

G4 Your ref: 2.2. Overshadowing is generally benchmarked between 1100 and 1400 at the equinox. This is a very narrow slice of the year and the day and completely neglects the low northern winter sun that is so important. The reason for this is that if you try and protect that low winter sun design criteria are unrealistic. Few people understand solar geometry and don't realise that town planning overshadowing criteria give them so little protection.

Key point of action: Consider the importance of winter sunlight in town planning applications while not requiring it to be protected as of right; it could be a virtue that could be traded off with other town planning criteria for instance.

G5 **Your ref: 2.3.** 20m Frontages are generally too big and five storeys at the frontage is too high. I don't know where the idea that pedestrians relate to that height came from but I suggest it is not representative. A streetscape of five storey, 20m wide blocks of flats is not attractive, for example: Nott Street Port Melbourne.

Key point of action: Minimise number of 20m frontages.

G6 Detailing and finishes of developments in Laneways should be maintained to a high standard and not become "back of house". Contrast the lanes of Albert Park and Middle Park, where this is generally done, with almost anywhere else in Melbourne.

Key point of action: Develop presentation guidelines & criteria for secondary elevations.

G7 **Public Open Space, Your ref: 4.1:** Given the lack of public land in Fisherman's Bend the 8% suggested as 4.1. is far too small. How far we have strayed from Le Cobusier's original vision of generous parklands interrupted by residential towers that started the whole flat block thing in the early 20th Century. We would support much larger spaces by compulsory or at market acquisition rather than open space contributions.

Key point of action: Consider much larger open spaces by land acquisition.

G8 **Public Open Space, Your ref: 4.1 Note 4:** We believe that 150mm is what was intended.

G9 **Public Open Space, Your ref: 4.2 Note 2:** Roof top open spaces cannot be commonly used because of wind. Such spaces should be addition and supplementary to minimum requirements.

G10 **Parking & Access, Your ref: 5.2:** The loading dock for flats is a very important and useful amenity. Those of us who live adjacent to flats know what the streets and lanes are like at weekends, jammed with vans.

G11 **Parking & Access, Your ref: 5.3:** Private parking spaces should NOT be limited. They should be adequate for the resident's needs. Every block of flats has people visiting continually, socially and to provide services; ample visitor parking is essential.

Key point of action: Ensure adequate car parking.

G12 Parking & Access, Your ref: 5.3 note 2: Suggest investigating what the uptake of the car hire schemes has been; anecdotally they don't appear to have won much favour and we note people's comments that they are expensive and cannot be activated at short notice.

Key point of action: Investigate success of short term car hire schemes.

G13 Sustainability and Energy Efficiency, Your ref: 6.1: We'd expect there will be issues with ground contamination in places. We are not environmental experts but our experience working on projects that have ground contamination problems is that these are treated as extraordinary large problems by the consultants who write expensive reports and no-one seems motivated to question them. Given that we do not sprinkle subsoil on our breakfast cereal and this is not a farming area does contaminated earth really matter?

Key point of action: Question any identified need for major works in response to ground contamination from a practical point of view based on what if scenarios rather than blindly accepting consultants' recommendations.

Irwin Structures Pty Ltd



Patrick Irwin
B.ENG(CIVIL), F.I.E.AUST, CP ENG, RBPEC 1619